



# INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 8, Issue 3 - V8I3-1402)

Available online at: <https://www.ijariit.com>

## Use and application of nudging in different countries

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### ABSTRACT

*'Nudging' has been a popular technique used by governments, institutions and other groups to reinforce positive habits and choices among people without the use of force and with ease of opting out. Different countries around the globe have inculcated the practice of 'nudging' into their policies for purposes like improving public health, promoting eco-friendly behaviour and more. It's important to study and analyse past experiments with nudging in order to understand what makes a 'nudge' effective, which in turn will help formulate better such campaigns in the future.*

**Keywords:** *Nudging, Nudge Technique, Nudge, and Public Policy*

### 1. INTRODUCTION

A Nudge is a particular kind of application of behavioural insights to policy, according to which policymakers should avoid regulation that limits people's choices but can change choice architecture to steer people toward better outcomes. Nudge is a tool that deeply shapes individual decision-making by employing positive reinforcement and simplifying certain decisions more than others. Choices should be designed according to how human beings actually think and behave, instead of being structured on how people are expected to act.

Nudge is a technique that uses positive reinforcement and simplifies some choices rather than others to profoundly affect individual decision-making. Instead of being based on how people think and behave, decisions should be made based on how people actually think and behave based on how people are supposed to behave.

Nudge strategies are most effective in "low-involvement" decisions, or those that require no deliberate deliberation, as well as high-involvement decisions that are nuanced or unfamiliar, according to marketing experts. It is not self-evident, though, that nudges would succeed in the case of high-involvement decisions considered to be low in difficulty. The option of a car brand in the case of people who have high brand loyalty is an example of a decision where nudges may not be successful.

Policymakers should use nudging in two ways. One, to mitigate the detrimental effects of other actors' (e.g., industry, media) efforts to subconsciously control human behaviour and thereby minimise undesirable behaviour (e.g., oily, salty, and sugary food consumption). Two, to encourage such behaviour and thus maximise desirable behaviour (e.g. Consumption of healthy food)

Nudging is a technique for persuading people to take a certain action – such as making a specific decision – without robbing them of their autonomy. Different nudges change people's behaviour in predictable ways without limiting options or altering economic rewards dramatically. Nudging may be used to replace or supplement conventional policy tools, and it provides a new way of achieving goals.

There are four different types of nudges:

1. Provision of information - The most common type of nudge is the provision of information, which is often combined with changes in the default option. Providing accurate and usable knowledge that simplifies

the decision-making process is a promising way to encourage people to make pro-environmental decisions.

2. Changes in the physical environment - Changes in the physical environment seem to be particularly effective at influencing behaviour in relation to waste sorting, waste recycling, and food waste reduction.
3. Use of a green default option - Changes in default options are a promising form of nudge, but this type of nudge is often used to promote energy use reductions and energy-efficient behaviour in the literature review.
4. Use of social norms and regular feedback - The use of social norms through peer comparisons in social nudges is intriguing because this form of nudge is used in energy and water consumption as well as waste sorting.

Businesses have a long history of using nudge-like tactics to influence buying habits and amounts. Companies have been leaders in using customer behaviour studies, particularly the most recent advances in sensory approaches and neuro-messaging, to create communication strategies in stores, marketing campaigns through various platforms beyond the in-store environment and influencing purchasing behaviour through in-store room layout and management.

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Nudging is still a relatively new approach to behaviour modification, especially in the policy and welfare realms. Early adopters like the United Kingdom, on the other hand, have shown a lot of hope. Furthermore, general behavioural economics insights are being used in many countries to design common policy instruments such as legislation. Although option architecture isn't a silver bullet, it is a policy instrument that can be applied at a low cost and yield meaningful results. When policymakers grapple with ever-increasing resource constraints, nudging could become a more common and powerful toolkit.

The impact of human behavioural execution of public policy is examined from a global perspective in this report. The study examines how nudge-type policies are implemented in various countries and in different ways. In addition, there is the availability of real-time data. For instance, Premium pension plan in Sweden, Applying behavioural insights to organ donation in UK, Sale of saturated fat consumption in order to improve public health in Norway, banking, Education and food wastage in Italy, and applying behavioural policy making to achieve efficiency in USA.

## **2. OBJECTIVE**

Nudging is a comparatively modern method of influencing behaviour sustainably without altering people's beliefs. Nudging may be used to encourage individuals to make environmentally or health-conscious decisions. The nudge theory has been used in various fields, including sociology, social science, political theory, and administration.

In a variety of sectors, from road safety to food and physical exercise, from pension plans to the private sector, and from littering to recycling, the value of behaviour modification initiatives is being recognized in politics and by policymakers. Advances in behavioural sciences have shown how, due to the interaction of psychological forces with what should be unrelated features of dynamic decision-making situations from intuition, human behaviour and decision-making are boundedly rational, consistently skewed, and highly habitual over the last four decades. These behavioural perspectives show how contextual factors in decision-making can cause people to fail to act on well-informed desires, and therefore fail to achieve their desired outcomes.

The majority of choices people make are unreasonable and unconscious. As a result, their behaviour can be influenced by altering the way options are given to them. Government can attempt to change people's behaviour to improve their wellbeing, as long as this may not require force or severe financial burdens. There is potential to use behavioural science tools to achieve this, such as nudging individuals in the right way rather than prohibiting or limiting their decisions. To limit energy demand, for example, a conventional policy solution will be to use taxes and incentives to change markets, thus impacting people's price choices and influencing their behaviour. Instead, the behavioural approach relies on how individuals are presented with decisions.

Nudges, or changes in decision architecture, have been used to change people's behaviour in many situations. While nudging has gained widespread acceptance, the scale of its effects varies greatly between studies. Many behavioural change studies have shown that most individuals who try to change their behaviour struggle to do so not because they aren't inspired but forget about it at crucial times. Nudges are designed to take advantage of this human frailty to make the desired decision simpler. Furthermore, in some experiments, nudges have been shown to be inefficient or even backfire, raising the question of whether and under what circumstances nudges are safe.

In our report, we analyse the use and application of nudging. We share success as well as failure stories, in which nudging tactics may or may not have resulted in the expected outcomes. We study the effectiveness and limitations of nudging in each country. These results suggest that nudges are successful at influencing customer decision-making through varying stages of the consumer's need for cognition or need for uniqueness. As a result, we do a comparative analysis of nudging in countries like Italy, Sweden, Denmark, Norway, the United Kingdom, and the United States of America. This paper aims to provide an overview of the variety of programs that use choice architecture strategies to support physical activity at the community level and recognize research limitations by analysing the various methods in terms of class and form of intervention used.

## **3. PRESENTATION OF FACTS**

### **3.1 Sweden**

Sweden, officially known as Konungariket Sverige (Kingdom of Sweden), is a Nordic country in Northern Europe. It is a developed country with an HDI value of 0.945 (2019), placing it at the 7th position in the world.

The country has made a lot of advancements in all facets of progress. In terms of gender parity, the country is only 10% away from equal gender-pay. Moreover, 54.5% of energy consumed by Sweden is renewable (water and biomass). Out of the 149 countries included in the 2020 Good Country Index, Sweden ranks 1st and is at 10th place among 190 countries in the Ease of Doing Business Index.

In this context, it is obvious that Sweden is a strong welfare state with a high degree of acceptance of government intervention. Thus, nudging is utilised and, in some cases, has proven to be extremely effective. One such case is the introduction of the Premium Pension Plan launched by the Swedish Government in 2000.

The pension system in place before 2000 “combined a flat-rate universal benefit with earnings-related supplement (ATP). A full earnings-related benefit could be obtained with 30 years of covered earnings at age 65, based on an average of the best 15 years”. However, this was an unjust system as people were expected to increase their contribution rates to a level that was unacceptable to future workers. Eventually, it was evident that a new policy had to be established in place of the prevalent one.

In the new policy that was introduced, individuals had the choice of depositing money in individual investment accounts. Premiums could be invested in a maximum of five funds (out of more than 700 mutual funds available). People were also free to change the fund they had chosen at any time, free of cost.

There was a unique provision of a special investment fund for individuals who did not want to make their own investment decisions and this fund was presented as the “default” option. However, the actual aim of the government was to motivate individuals to choose their own portfolios instead of relying on the default option and to motivate this behaviour, public announcements and advertisements were carried out.

The campaign was successful as the majority of the people chose to form their own portfolios. But, as soon as the Government reduced advertising, the number of people opting for individual portfolios also decreased and there was a sharp rise in investors choosing the default option.

Thus, while this nudge was effective in the short run due to the extensive information-dissemination campaign, in the long run - a default option turned out to be stronger.

### **3.2 Denmark**

Pelle Guldborg Hansen, a behavioural economist and psychologist, created the Danish Nudging Network in December 2010. The aim of this project is to create a network of researchers, clinicians, stakeholders, and policymakers who are all interested in utilising and implementing nudge-type interventions. They work to pique people's interest in the nudge approach's potential in policymaking and as a component of corporate social responsibility. They also promote an open discussion about the potential drawbacks of behaviour modification policies.

**3.2.1 An Information Network:** The Danish Nudging Network is a horizontal network of companies, organisations, and institutions. Think tanks, foundations, banks, corporations, colleges, and federal agencies are among the more than eighty participants. The Danish Business Authorities and the Danish Ministry of Taxation are two examples of public institutions. They've even invited the Ministry of Sciences to join the network, but no specific action has yet been taken. They have no contacts with the Danish government at the moment. They also worked with the Administration on certain programmes, but they do not encourage lawmakers or political parties to join them.

The DNN offers three different types of membership. Concerned Parties Members pay a one-time fee of 670 euros per year and have free access to the DNN master classes. Active participants pay a yearly fee of 335 euros and enjoy special discounts on DNN events. Passive participants are welcome to join for free and receive DNN newsletters. Membership in the Danish Nudging Network involves active involvement and participation in addition to providing access to the network's information and ideas.

The Danish Nudging Network has an annual budget of about 20,000 euros. Memberships, sponsors, and partnerships provide them with much of their funding. Indeed, the Danish Nudging Network should raise at least 31,820 euro a year from membership fees, with 25 stakeholders and 45 active participants.

Since they are converted into new information for institutions, businesses, and civil society, the majority of their benefits are "indirect." In an interview, Pelle Guldborg Hansen said that making a realistic estimate of the benefits produced by the DNN would be a work of fiction, and that other countries' savings estimates are also unreliable. In the short term, a profit of tens of millions of euros for Denmark would be expected.

They host Nudge Master Classes, in which they teach nudging concepts to practitioners from various fields. Their primary goal is to spread behavioural insights across Denmark. Pelle Guldborg Hansen is also the founder of iNudgeyou, a group of researchers and innovators specialising in nudging science. They provide resources and apply behavioural science to public agencies, non-governmental organisations, and companies, with the goal of developing and scientifically validating behaviour modification strategies for closing the distance between prosocial goals and behaviours.

### **3.3 Norway**

GreeNudge, a Norwegian company, places an emphasis on the impact of their work. It is important for them that the work they do has a long-term effect. To do so, they use three strategies: interpretation and measurement, collaboration, and science. GreeNudge is

a non-profit organisation that supports socially beneficial programs.

### **3.3.1 Report on Development in Sale of Saturated Fats Sold in NorgesGruppen Stores:**

The report's factual basis is objective sales statistics from NorgesGruppen, and all analyses were conducted independently by GreeNudge. Their aim was to decrease saturated fat consumption in order to improve public health. NorgesGruppen has set long-term objectives until 2020, with the aim of lowering saturated fat in the related food groups. From 2015 to 2020, the aim is to reduce saturated fat by 5% overall, with a 1% decrease each year.

Nudging measures look at how nutritious foods are presented in stores to make them cheaper and more appealing to customers. These tools mainly influence our unconscious decisions, i.e., decisions that are not based on facts or experience. According to studies, these methods have the ability to persuade consumers to make healthy grocery store decisions. Since most ordinary decisions are taken unconsciously and intuitively, the tools are useful. People make swift and spontaneous decisions, but the concept of being able to inspire, manipulate, or "nudge" them to make certain choices is dependent on that.

Several reports have shown that in-store preparation has a small impact on the health benefits of improved fruit and vegetable consumption. This is particularly important for people with lower levels of education and income. Since nudging has the ability to influence all customers, it is likely to be especially well adapted to reaching out to disadvantaged populations and assisting in the abolition of socioeconomic disparities in diet. There hasn't been any study done on how to minimise volume- saturated fat.

- In grocery stores, consumers will be persuaded to make better decisions. Nudging was shown to have a mild or high impact in 70-80% of the trials.
- A larger range of healthier options may have a greater impact on consumers than health labelling, while small improvements in place, such as raising the shelf height, may or may not have an impact.
- Simplified labelling and information in the form of icons can have a bigger impact than informative information, and price cuts can have a bigger impact than health labelling.
- Labelling and pricing analyses suggest that these devices may have a different impact on health against harmful food groups.

In 2015, NorgesGruppen began working to reduce the amount of saturated fat sold in its stores. This has been a difficult task. Sales of saturated fat content rose until 2017. The rise was 1.6 percent between 2015 and 2016, and 0.3 percent between 2016 and 2017. In 2017, NorgesGruppen stepped up its attempts to minimise saturated fat in a number of key food categories.

About 2017 and 2019, gross volume-saturated fat was reduced by 2%. As a result, the focus of this assessment is on the period from 2017 to 2019 and specific examples of actions taken.

## **3.4 United Kingdom**

### **3.4.1 Applying behavioural insights to organ donation in UK:**

Over a million people signed up for the NHS Organ Donor Registry last year, taking the number to 19,532,806. We are aware that many people who show an interest in joining the Organ Donor Register do not follow through. According to recent opinion polls, Organ donation is supported by 9 out of 10 people. However, only about one out of every three citizens is registered. This gap may be bridged with new interventions between the intent and the action.

In collaboration with NHS Blood and Transplant (NHSBT), the Government Digital Service (GDS, which runs GOV.UK), the Department for Health (DH), and the Driving & Vehicle Licensing Agency, the Behavioural Insights Team performed one of the largest Randomised Controlled Trials (RCTs) ever conducted in the UK (DVLA). This got high traffic on the web page and encouraged people to come forward. The results of this were so impressive that if used throughout the year it would lead to 90,000 extra registrations.

The most effective message appealed to people's senses of reciprocity and justice by saying, "If you wanted an organ transplant, "If you needed an organ transplant, would you have one? If so, please help others." The page encourages people to enter the Register and, in most cases, even contains an organ donation post. Using behavioural sciences as a springboard.

They tested eight different webpage variants to understand which one was more effective. Over one million people saw one of the eight variations over the course of the five-week trial (over 135,000 for each). As a result, the trial is one of the largest ever undertaken in the UK public sector. We were able to identify subtle variations in the proportion of people signing up for the Register because of its size.

The control page was the first Variant. The control page expresses gratitude to the website visitor and requests that they "please join the NHS Organ Donor Register." Every variant includes this simple request. Variant 2 provided information on the large number of people who had joined the organ donation register. The social norm—what other people do in a similar situation—is stated in this message. Social norms are convincing in a variety of fields, including energy efficiency and tax enforcement, so there was reason to believe that this message would be efficient. Variants 3 and 4 were similar to the second but they also included a picture, three had a group of people and four had NHSBT's logo. These images increased the importance of the message giving visual cues. Variant 5 informed people about the negative consequences. "Three people die every day because there are not enough organ donors". Knowing that people are often loss-averse, meaning that they value the loss of something more than an equal benefit. Variant 6 promotes the advantages of registering, "You could save or transform up to 9 lives as an organ donor". Variant 7 appeals to people's natural urge for justice and reciprocity. Variant 8 Attempts to persuade people to behave by their wishes

### **3.5 United States of America**

Early forms of nudging and choice architecture have been taken into consideration for the first time in the seventies by Charles Schultze, who was the 39th President of the United States Jimmy Carter's economic advisor, who had highlighted those concepts in his book "The Public Use of Private Interest". According to his view, the base drives of self-interest might be harnessed to promote the common good. He did not take into consideration "Command and control" directives as a solution to the problem, since it would have complicated people's options too much. Regarding workers' safety, for example, he affirmed that "if specific regulations are the only bar to prevent social damages, first it will take time to deal with ladders and then even more as time goes on". This meant that the legislator should adopt a more "good sense" approach rather than curb the employer in a jungle of norms.

In the nineties, Bill Clinton discovered behavioural insights thanks to David Osborne, an influential policy guru, who wanted "Reinventing Government", by making it more efficient, responsive and business-friendly. In a speech at the University of Connecticut, Clinton extrapolated Osborne's words asserting that he wanted to promote "a government that steers more than it grows; a government that is a catalyst for action by others; a government that is market-oriented, less bureaucratic and more entrepreneurial."

Barack Obama had promoted a smarter and more efficient government, which took into account behavioural economics very seriously. He appointed Cass Sunstein among its main advisers and employed behavioural insights in many fields: from pensions, to healthcare, to finance and environment.<sup>104</sup>

Obama's ruling, in a certain sense, expressed the Third Way, because it had social ends, it employed innovative means and policy tools and respected individual freedoms of employees. It was a government which intervened but that may not be strictly defined socialist. Sunstein and Thaler's bestseller "Nudge" was published in 2008 and had a great influence on Obama's political culture. It has been revealed as a perfect means to justify radical policy packages and preserve people's freedom of choice.

### **3.6 Italy**

**3.6.1 Nudge Italia:** In Italy there is no official behavioural insights team established by the Italian government. However, there are some independent academics who have launched an informal nudging group, and their purpose is to promote and support nudging initiatives in Italy. They are known as 'Nudge Italia' and are controlled and coordinated by prof. Paolo Moderato. They are an initiative of the IESUM (European Institute of Studies on Human Behaviour). IESUM originally started as a network of psychologists in the 1980s however they were established as a recognised foundation only about 10 years ago. They provide several services, like consultancy for firms and special master courses in applied behaviour analysis, psychotherapy, and cognitive-behaviour sciences. At the moment, Nudge Italia does not involve some of the major Italian personalities in the field of behavioural economics. They lack involvement from other kinds of proficient fields other than psychologists, and therefore are at risk of being consigned as a psychologists' network instead of the Italian chapter of the European nudging network.

**3.6.2 Initiatives:** Nudge Italia, in collaboration with many public institutions, research institutions and a few private institutions, has applied numerous behavioural insights to policy areas. In 2016, Italy declared some of them that had been brought into action and their impact towards the desired outcome.

- **Banking - Using a lottery system to encourage card payments.** This was an initiative undertaken in the city of Bergamo in ambition to make it the first ever cashless European city. In addition to this, use of cards for payments was a traceable mode of money transaction and thereby helped the government to prevent VAT evasion. Each time a consumer used a card to make purchases in a shop and got the cashier to scan their Receipt Lottery code, they got one lottery ticket for each euro spent, up to a maximum of 1,000 tickets for a single receipt. For consumers and retailers there were additional daily rewards up to 100 euros and weekly prizes of 500 euros. The tickets generated were then put into automatic draws and the winner was declared via email. Moreover, if the objective of 660000 card payments would have been achieved by the end of November 2015, all schools in Bergamo were assured to receive super-fast internet connections.

- This initiative increased the card transaction per person in Bergamo in 2015-16 by almost 64% from average 40 transactions/year per person to almost 160 transactions/year per person. However, Bergamo couldn't achieve the target of 660000 card payments as only around 35% of retailers were able to scan codes for the lottery at that time, due to the lack of the necessary technology, connection problems and other issues. People eventually stopped using cards for payments and went back to the traditional method of cash transaction as they weren't deriving the equivalent benefit of the effort, they were putting in making a transaction using their card.

- **Education - Improving performance in maths among school pupils.** In 2015, Nudge Italia, in collaboration with the Italian ministry of education, launched a trial for encouraging chess practice in schools. The experiment was conducted in conjunction with the Italian chess federation. Access to their online platform and personalised tutoring was foreseen as a possible outcome. The experiment was first launched in primary sections that mandated chess practice as a part of the curriculum. Similar actions were carried out in the secondary sessions as well. As an outcome, chess practice improved the students' performance in maths by a staggering 17%. Although many disagree, this experiment could be seen as a behavioural initiative as it improved the curriculum by enhancing performance of the students with the same total hours of tuition. Moreover, the very nature of any experiment, "trial", strengthens the argument.

- **Education - Rooms' architecture.** Recently Nudge Italia was contacted by the Ministry of Education and Research to deliver advisory regarding the reorganisation of classrooms within the secondary school reform in order to improve education. Their task included analysis of the influence of a room's architecture on a student's learning, by applying environmental psychology

notions.

Professor Nanni Presti, neurologist, psychologist and IESUM vice-president, asserted that the colours in an environment conclusively influence the way in which a student learns. For example, if children spend their breaks in green areas instead of artificial places, they will be much more prone to learning and their focus would be majorly inclined towards absorbing what is being explained during the following lessons. The Ministry of Education is hence the avant-garde of Italian Nudging, but most work is still to be done.

- **Environment- Limiting food wastage.** Achuan hypermarket, the French multinational retail group, in Italy in 2015 was advised to undertake behavioural policies in order to try and curb food wastage. They were asked to apply a discount to any and all food items near to the date of expiry. Price cuts up to even 50% were offered on such items. Consumers were encouraged to consume products with such offering therefore helping reduce wastage of food items due to not being consumed before expiry. In addition to this, these items were also placed around the store at locations the customers would easily notice them. Moreover, they even used special stamps or posters that would draw the attention of the customers towards these items.

Apart from this, Achuan has its own initiatives that promote reduction of wastage in food. They provide certain food items without packaging. This allows customers to purchase the items in small quantities without any imposition of minimum buying quantity. They can purchase only what they shall consume and thereby reduce wastage of any extra quantity.

#### 4. PRESENTATION OF DATA AND ANALYSIS

##### 4.1 Sweden

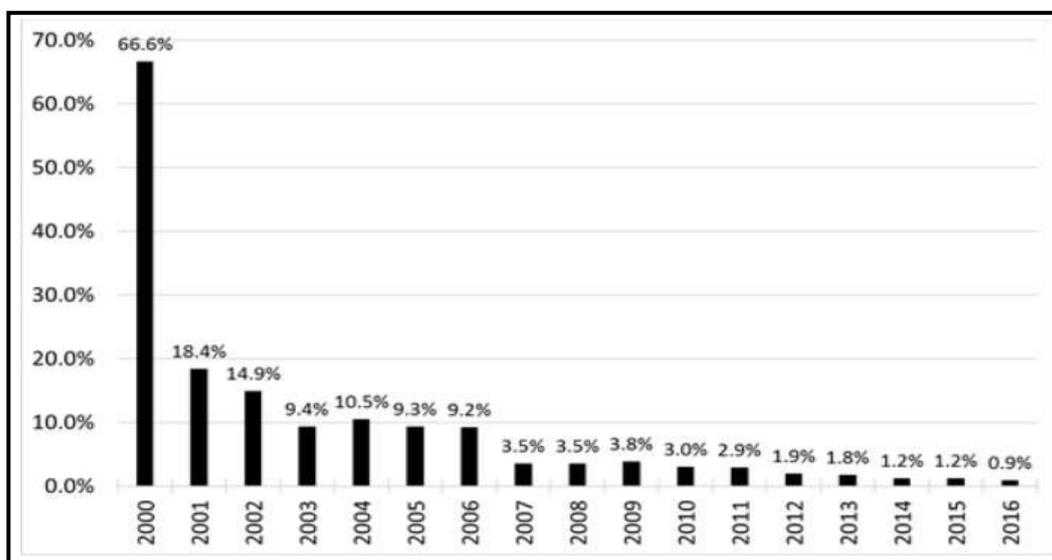


Figure 1 – The number of investors who chose to form their own saving portfolios rather than the default option on first joining the plan (Source: Henrik Cronqvist, 2018)

The above graph (Fig. 1) shows the number of investors who chose to form their own saving portfolios instead of the default option when they first joined the plan. We can clearly see that while over 66.6% people preferred not to revert to the default option in 2000, that percentage decreased dramatically over the years as advertising also decreased. From just 2000 to 2001, there was a 72% fall and in 2016, only 0.9% investors opted to have their own portfolios.

##### 4.2 Denmark

Table-1: An international comparison among Behavioural Insights Teams

| Country     | Foundat ion | Structure          | Staff | Status  | Owner  | Fixed Costs (Estimated)                         | Benefits (Estimated) |
|-------------|-------------|--------------------|-------|---------|--|---|----------------------|
| UK BIT      | 2010        | Centralized Unit   | 60/65 | Private | 1/3 NESTA<br>1/3 Employees<br>1/3 Government | 5.8M E/year                                     | 500M E/year          |
| USA SBST    | 2014        | Centralized Unit   | 7     | Public  | US Government                                | 1.000.000 E/year                                | 150M E/year          |
| Denmark DNN | 2012        | Horizontal Network | 3     | Private | Academics + NGOs                             | 20.000 + 100.000 (estimated – iNudgeyou E/year) | 10-50M E/year        |

(Source: Balzo, 2015)

Those who are familiar with the DNN have a very good opinion of it. Despite this, few people in the general population are aware of the DNN. Nudging, according to Hansen, is a high-competency ability that many people across realms and administrations can master. As a result, distributing efforts among local nudge units may be an effective way to achieve this goal.

### 4.3 Norway

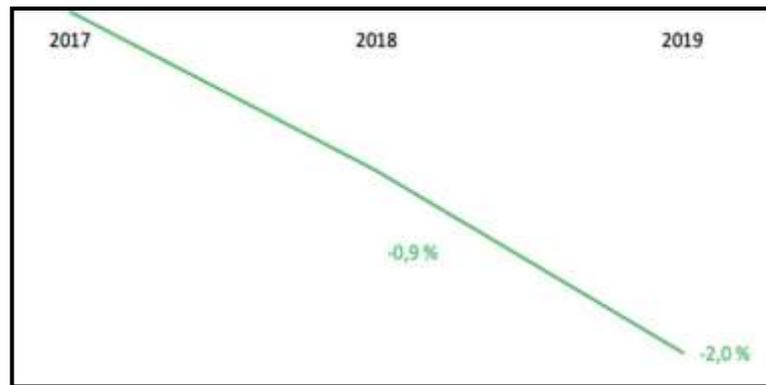


Figure 2 – Evolution of volume-saturated fat for all NorgesGruppen chains' related products (Source: NorgesGruppen, 2020)

This graph (Fig. 2) depicts the evolution of volume-saturated fat for all NorgesGruppen chains' related products that are included in the food group. From 2017 to 2018, total volume-saturated fat sold in Norges Gruppen's chains decreased by 0.9 percent. From 2018 to 2019, volume-saturated fat was reduced still further, resulting in a net decrease of 2.0 percent of volumesaturated fat between 2017 and 2019.

### 4.4 United Kingdom

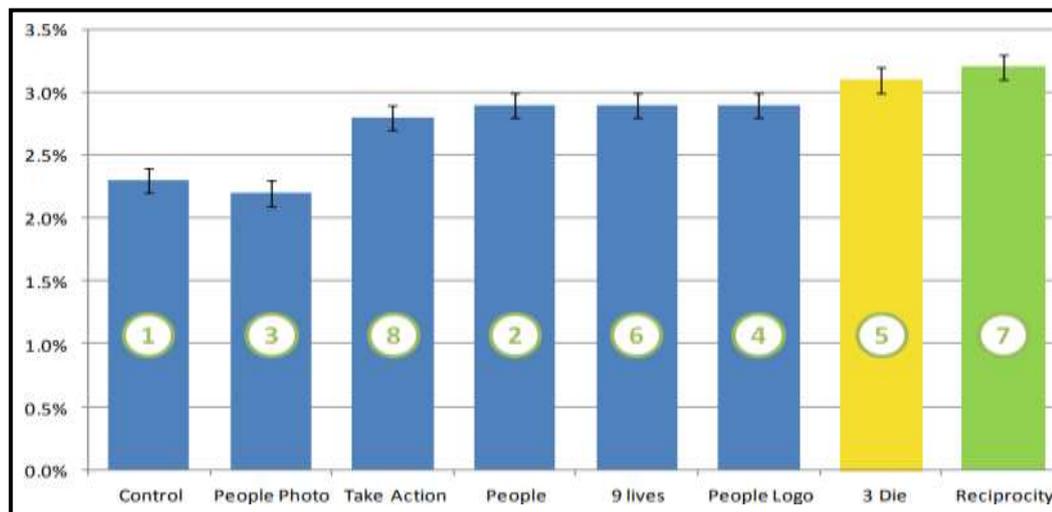


Figure 3 – Percentage of people registering as organ donors, by variant. (Source: UK Government, 2013)

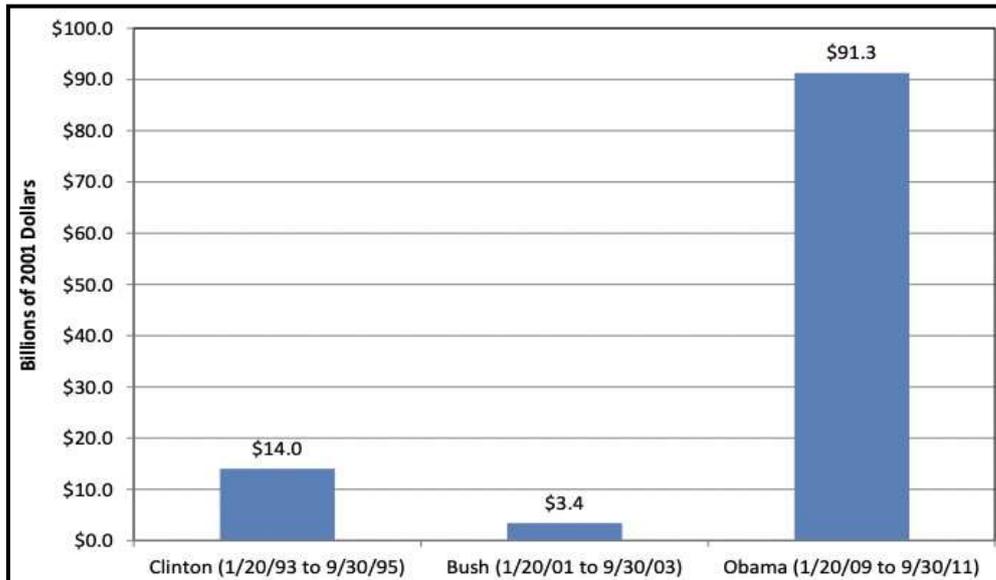
The results of the human behavioural insights to organ donations can be seen above (Fig. 3), whereas compared to the control group, there was a large rise in enrolment rates.

- One exception: the social norms message combined with an image of a group of people (variant 3) decreased the number of people who signed up.
- Variant 7—the message that relies on reciprocity—is the most popular variant, as shown in green on the graph (Fig. 3). Except for Version 5, this performed substantially better than the other versions. These two top results are statistically insignificantly different.

Apart from the key finding that most test messages increased registrations, two other results were especially intriguing. First, the impact of the loss frame can be seen in variant 5 is significantly greater than variant 6. Although the messages are not exactly equivalent This finding indicates that third-party loss aversion is present. The second variant has a positive effect on registrations, when combined with an image of a group of people, however, it had the opposite effect as the influence. This is the polar opposite of what we had expected. One theory is that using a stock picture turned people off because they saw it as a marketing gimmick. This unexpected outcome demonstrates why it's important to evaluate different messages, as long as they're sent to a large enough number of people to detect differences in responses. There were compelling reasons to believe that the group picture would be beneficial

This campaign aimed to encourage people to sign up for the Organ Donor Registry after applying for a driver's licence or renewing their car registration. However, the results demonstrate how minor improvements in particular public service contexts may have significant consequences. They also demonstrate how evaluating and trialling measures will assist policymakers in determining which intervention would have the greatest effect. These results are crucial not only for figuring out why people enter the Register but also for figuring out what motivates them to do so. They explain how to use behavioural science insights to develop strategies in other fields.

### 4.5 United States of America



**Figure 4 – The net monetary benefits of final, federal agency regulations issued through the third fiscal year of the Clinton, Bush and Obama administrations. (Source: Zeder, 2012)**

In 2009, President Obama gave behavioural policy making its main goal and highest profile endorsement by hiring Thaler’s Nudge co-author and Harvard legal scholar Cass Sunstein to head the White House’s Office of Information and Regulatory Affairs.

Sunstein was given a wide mandate in order to apply cost-benefit analyses to all programs which encompassed the new healthcare bill and the new set of financial regulations. Sunstein, who has since quit his job at the White House was never liked by the Conservatives who found the “Libertarian paternalism” of Sunstein’s book Nudge was overprotective or interfered with personal choice.

From the perspective of the public, the biggest changes that were implemented by Sunstein were the overhauling of the Food and Drug Administration’s food pyramid which was conscientiously read and ignored by school children over many generations of students into a more intuitive “plate design” which showed a breakdown of how much of each portion of meal should be allotted to fruits, vegetables, protein, dairy and grains. Other programmes included a website which allowed car buyers to compare fuel costs of a car against a benchmark vehicle rather than staring at uninteresting and difficult to comprehend statistics like miles per gallon.

Sunstein claims the federal rules and policies placed in situ throughout Obama’s first term saved more than \$90 billion per annum for the U.S. government. (Fig. 4)

## 5. RECOMMENDATIONS

A shared aim of society is to encourage individuals to act in ways that are environmentally friendly or promote a healthy lifestyle. Nudging is a term used in economics and political science to describe the use of encouragement, constructive reinforcement, and other non-coercive methods to influence judgments and behaviour. Through the widespread use of digital devices, digital nudging (also known as digital nudge) has a lot of promise.

*Digital nudging* is described as a “subtle form of using design, information, and interaction elements to guide user behaviour in digital environments, without restricting the individual’s freedom of choice”. Personalization and context-awareness are used to tailor smart nudges, with insight about the customer and her situation playing a key role. Until designing a custom nudge, such experience is focused on gathering a broad variety of data, building a user profile, and interpreting data in the sense of the user. In comparison to non-tailored nudges, we assume that a tailored nudge is more likely to work, i.e., be embraced and adopted by the recipient.

Getting people to alter their behaviour is a moving target. According to a nudging target, the goal is to nudge people to act differently. To tailor nudges, user behaviour must be tracked in order to assess the user’s normal behaviour and how it can evolve over time. Nudging can adjust to target the next stage of desired behaviour as behaviour changes.

Nudging is a technique for persuading people to alter their behaviour without restricting their freedom of choice. To consider nudging a service, we must presume that the nudging goal is for the greater good, and that nudges are built by a well-intentioned group with the best interests of the public at heart. This, though, is not always the case. Transparency, in which users are informed that nudges are being used to manipulate them, is seen as a critical defence against coercion and nudges that are harmful to the users’ best interests.

The majority of digital and smart nudging systems are delivered through a smartphone application. In these scenarios, nudge clarity can be accomplished by simply specifying the nudging target in the application description. The customer is then informed of the intent to nudge and given the option to use or not use the program. A similar alert could be shown each time the user launches the program.

Both capability and opportunity influence motivation, and all three elements influence behaviour. For example, in order to encourage anyone to ride a bike, they must have access to one and be able to ride it. It also necessitates the ability to ride a bicycle. If the gap is excessively long, for example, the nudge can be avoided.

A nudge recommendation does not aim to provide the customer with a solution that is well within their interests, but rather to push them to do something that is in accordance with the nudging target. Users are usually challenged by certain guidelines to select action that is better or more environmentally friendly than they would otherwise do. The nudging target might or may not correspond to the user's original desires or specifications. However, the intention is to alter the user's conduct, as well as his or her desires or specifications.

## **6. LIMITATIONS**

### **6.1 Habits**

The automaticity of behaviour is evident from decades of research into unconscious thinking and habits. Behaviour that is exhibited regularly tends to become a habit under stable circumstances.

### **6.2 Social Beings**

The social influences on behaviour are also well-established. People are influenced by their definition of 'normal' or what might be expected of them by others. Messages which include a description of what others do have been shown to affect behaviour.

### **6.3 Hidden**

Another limitation of Nudge is also one of its major attractions for policy makers: It changes behaviour imperceptibly. People do not realise how they are being influenced and in what way.

### **6.4 Small change**

The final limitation of Nudge is perhaps the most obvious. Nudge is exceptional for relatively small-scale and short-term behaviour changes, and doesn't challenge the status quo. From this perspective, a Nudge is not – contrary to Thaler and Sunstein's claim – politically value-free, but tends to favour the dominant governance paradigm of a deregulated, growth-based economy.

## **7. CONCLUSION**

We've seen how a shift in a country's political culture can lead to the formation of behavioural analytics teams. This is why they have spread so quickly in the Anglo-Saxon world, although most policymakers in Italy are still unaware of them.

The State cannot be made clearer by Behavioural Insights Teams. A simpler state, on the other hand, is more likely to create Nudge Units in order to improve its policies. This means that, before making policy changes, policymakers should move from an intuitive to an evidence-based approach to policy making.

In the field of policy and welfare, choice design and nudging are both relatively new approaches to behaviour change. Early adopters like the United Kingdom, on the other hand, have shown a lot of potential. Furthermore, general behavioural economics insights are being used in many countries to design conventional policy instruments such as legislation. Although option architecture isn't a silver bullet, it is a policy tool that can be applied at a low cost and yield meaningful results. As policymakers grapple with ever-increasing resource constraints, nudging could become a more common and powerful toolkit.

We compared the relative effects of three different forms of nudges on donation behaviour in our pilot field experiment. The findings show that subtle measures, such as appealing to social norms or providing information, have an impact on environmentally friendly donation behaviour.

We've also noticed that establishing Behavioural Insights Teams within the government isn't needed. They can also be developed as a private and horizontal network of researchers, companies, and organisations, as the Danish example showed, with the goal of spreading behavioural insights across society. Nonetheless, only policymakers can provide researchers with the resources they need to adapt their results to real-world scenarios and public benefit goals. Therefore, it is important for Units and administrations to work together.

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